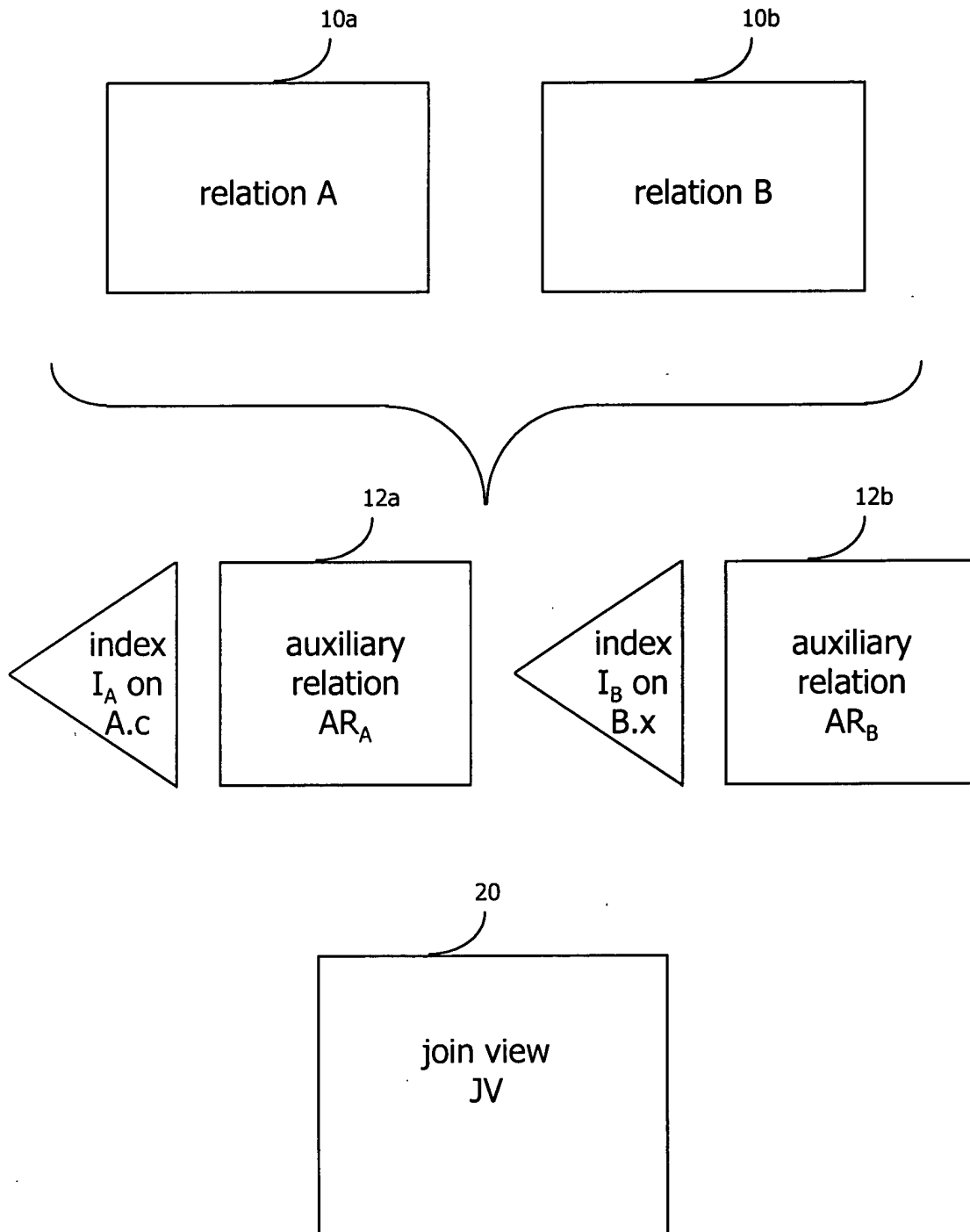


Figure 1



09900280-070601

Figure 2

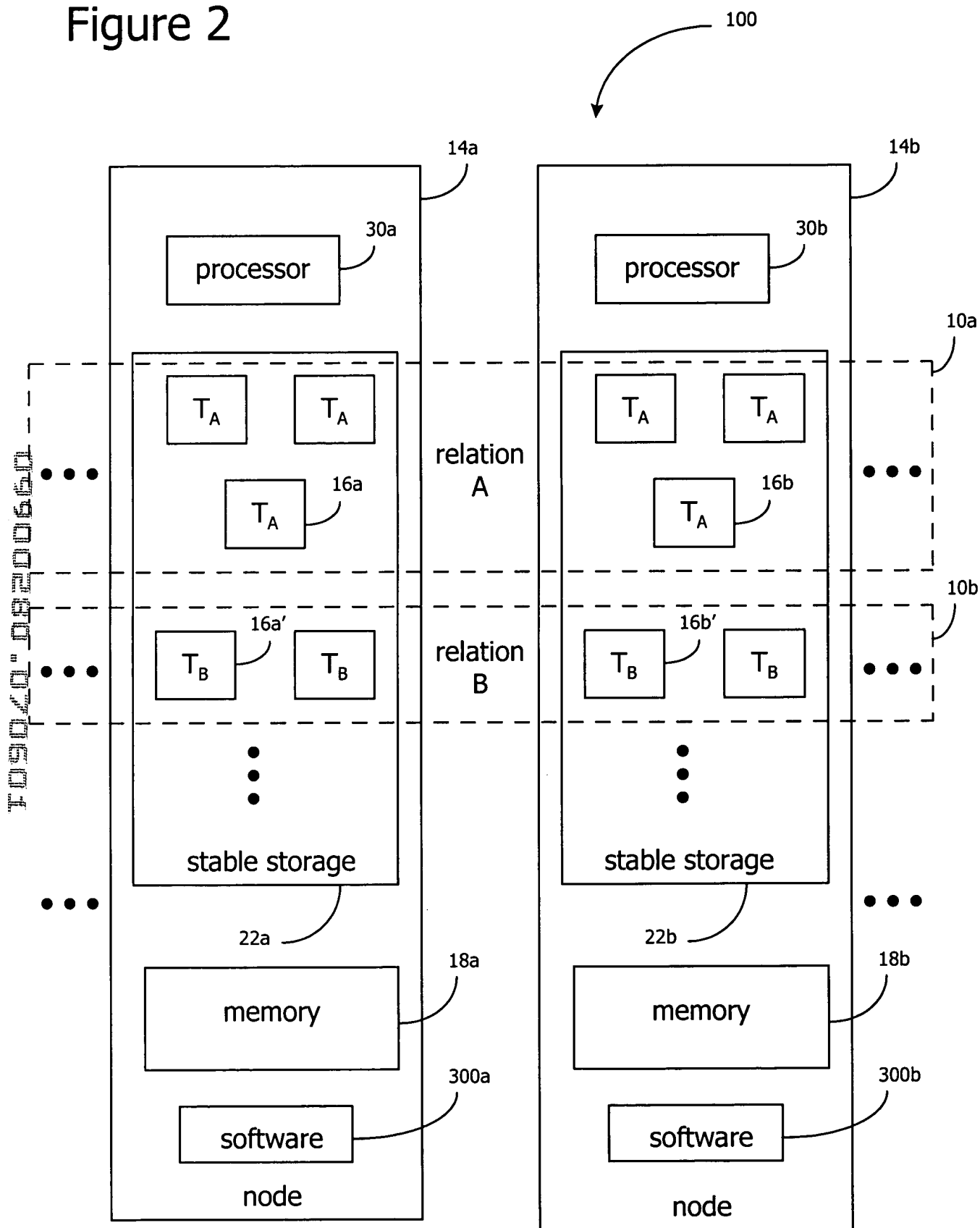


Figure 3

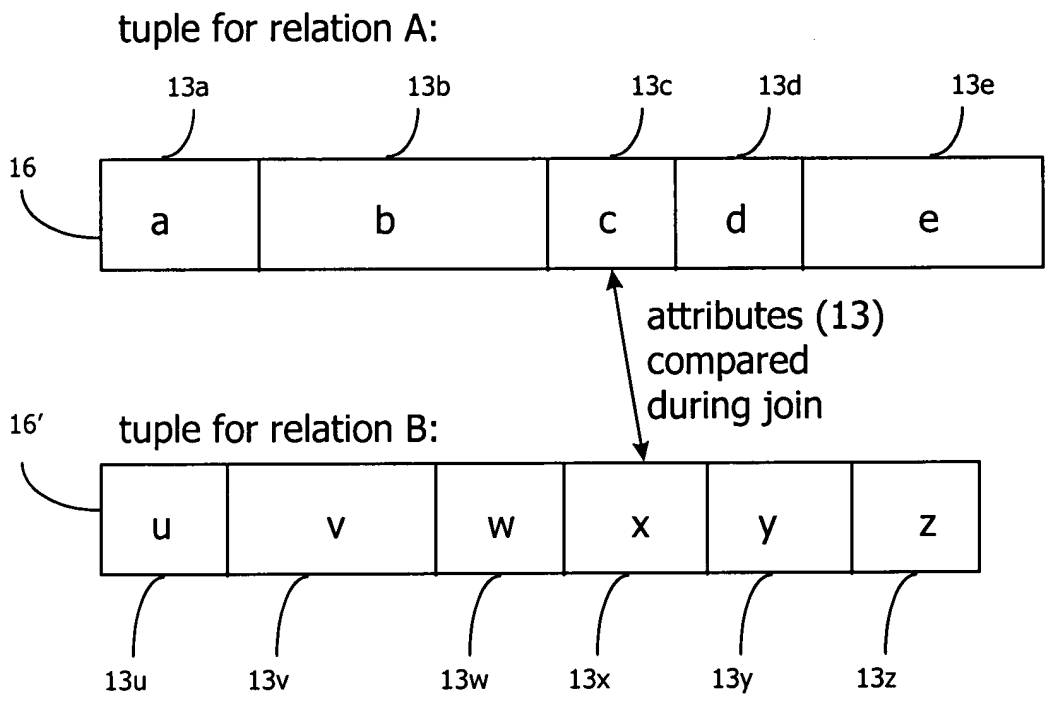


FIG. 3 is a diagram illustrating a join operation between two relations, A and B. Relation A has a tuple with five attributes labeled 13a through 13e, containing values a, b, c, d, and e respectively. Relation B has a tuple with six attributes labeled 13u through 13z, containing values u, v, w, x, y, and z respectively. An arrow points from attribute 13c of relation A to attribute 13x of relation B, with the text 'attributes (13) compared during join' indicating that these two attributes are being compared for a join condition.

Figure 4

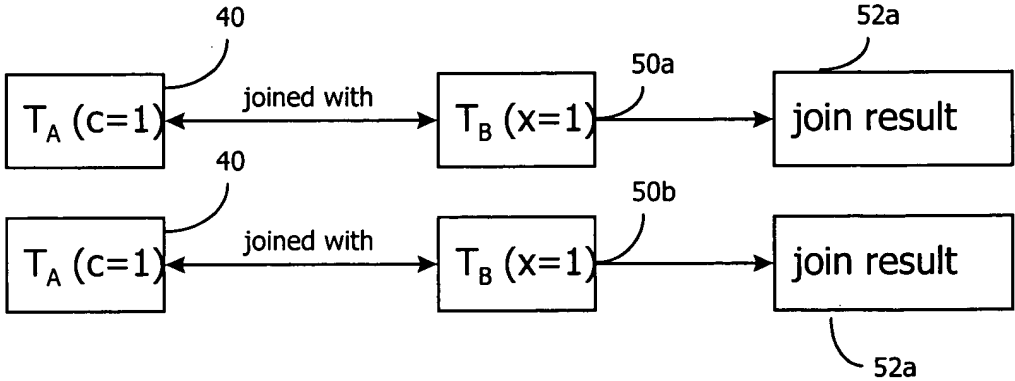
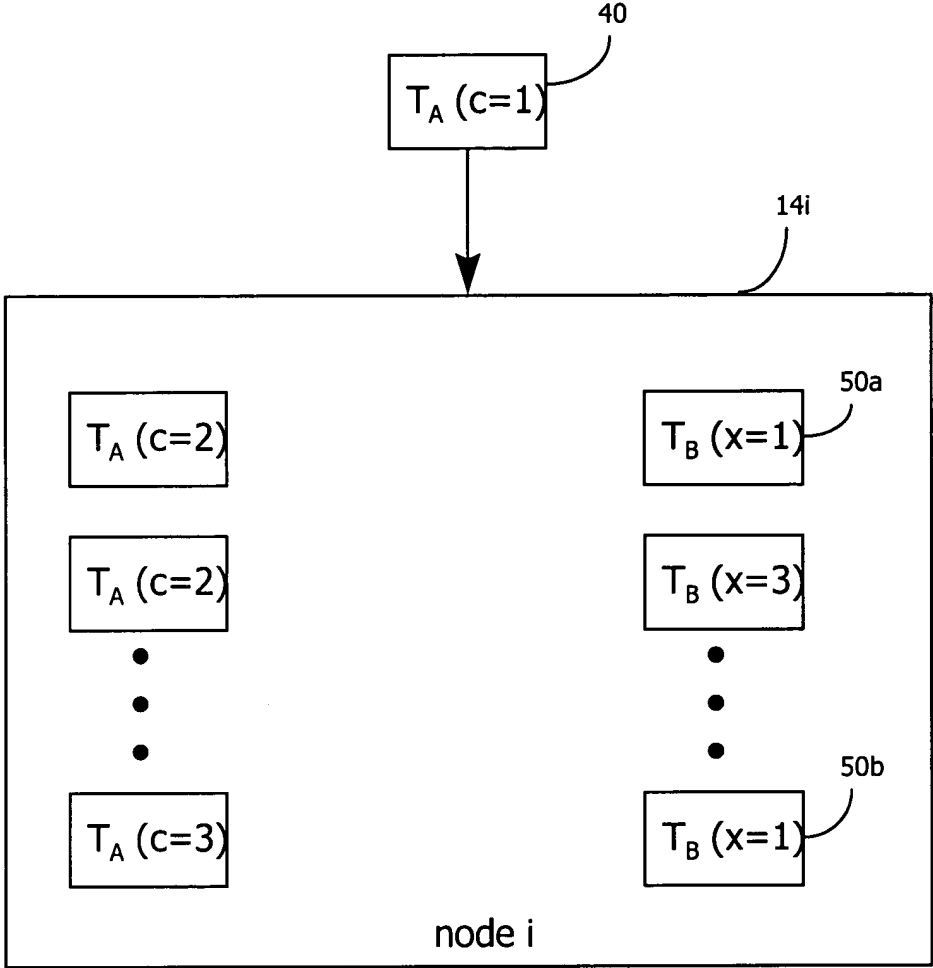
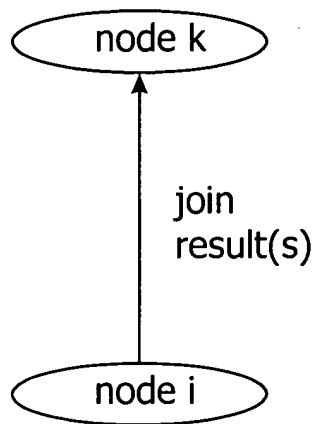


Figure 5A

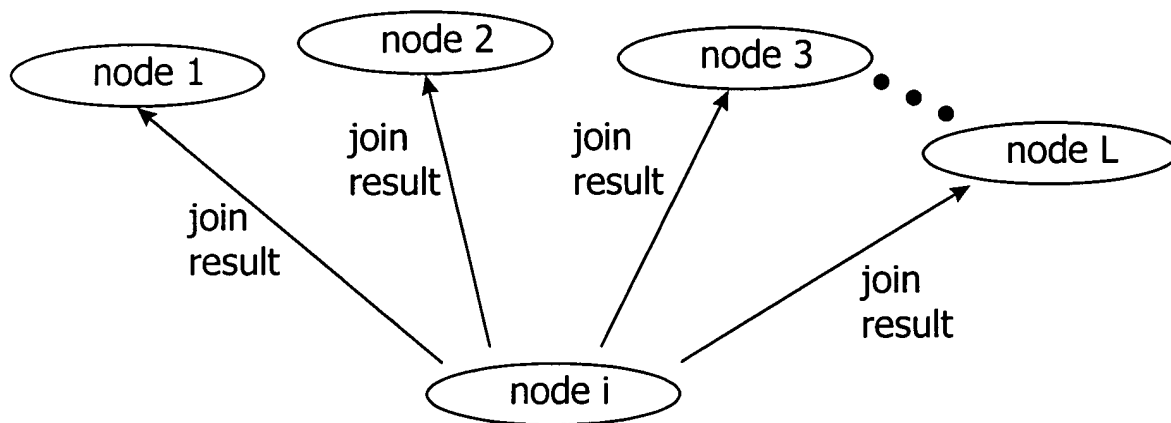


k) join result(s) inserted
into join view JV

i2) T_A joined with $T_B(s)$ to
produce join result(s)

i1) T_A stored in relation A

Figure 5B



0900280.070604
T09070.0820050

Figure 6A

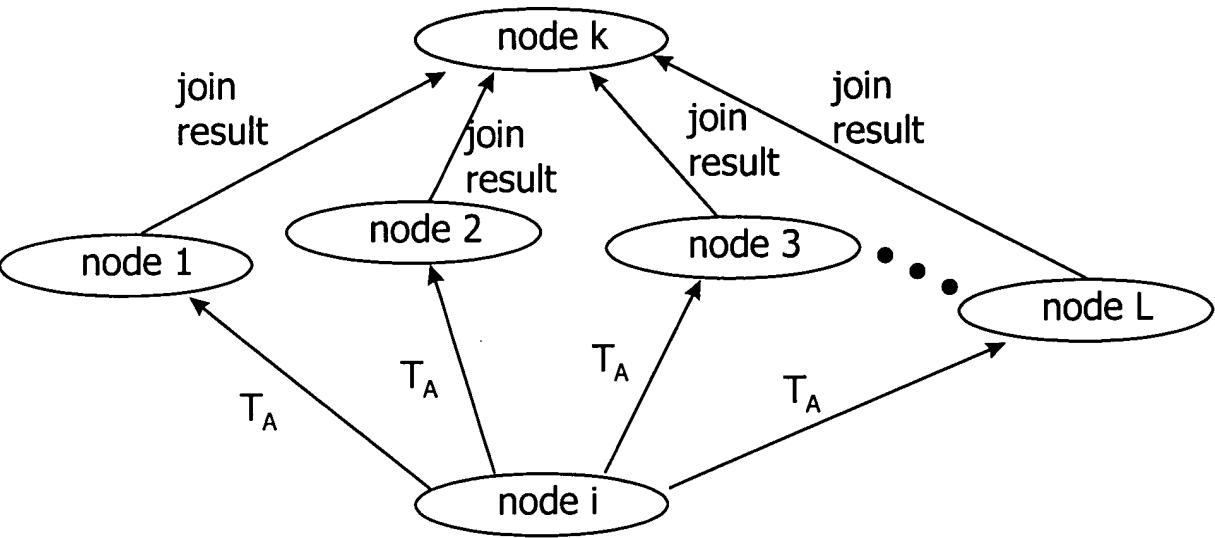


Figure 6B

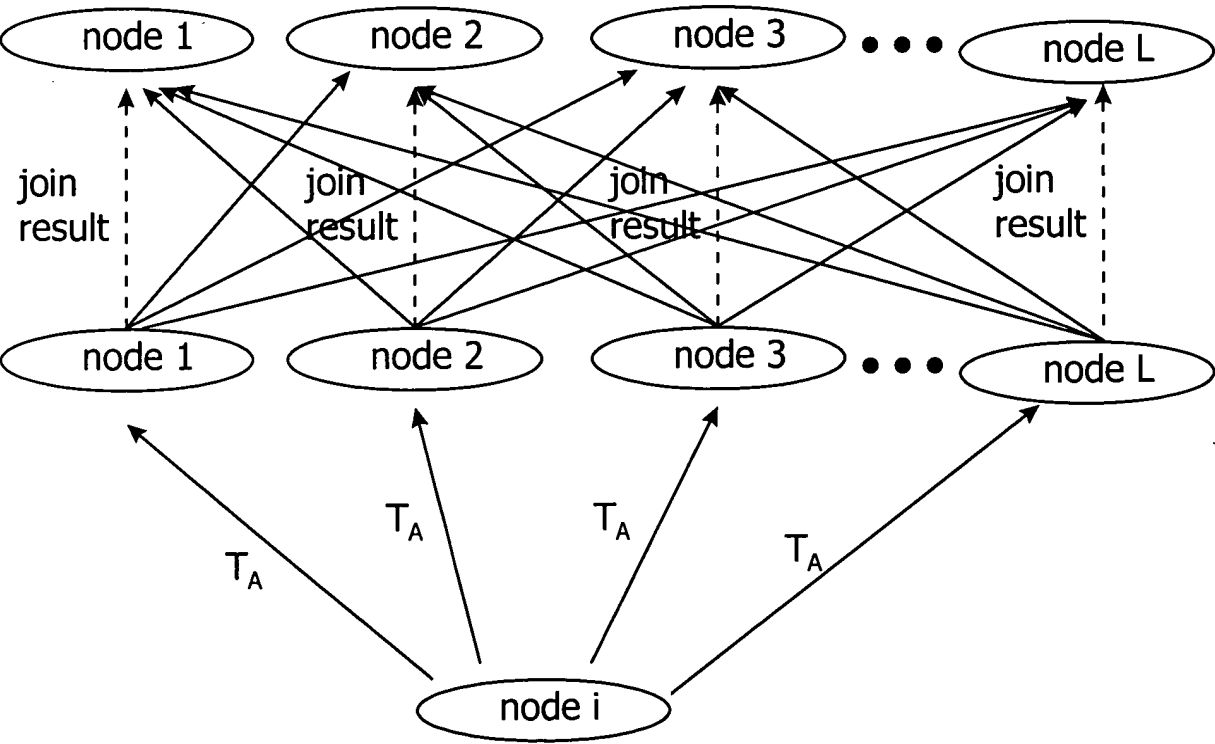


Figure 7A

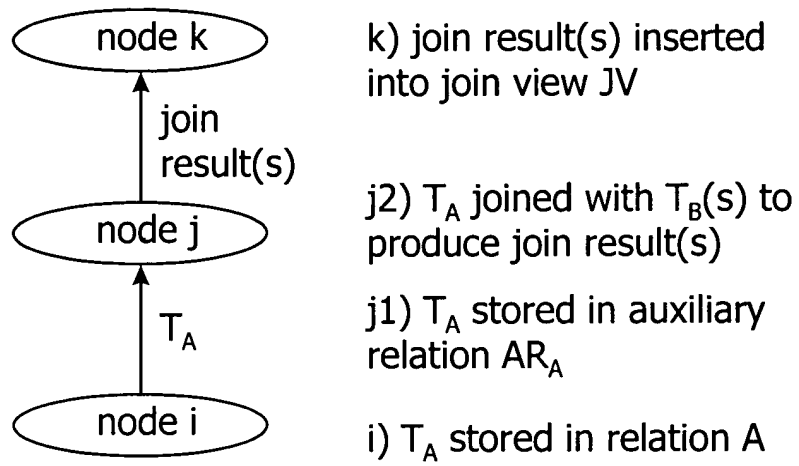
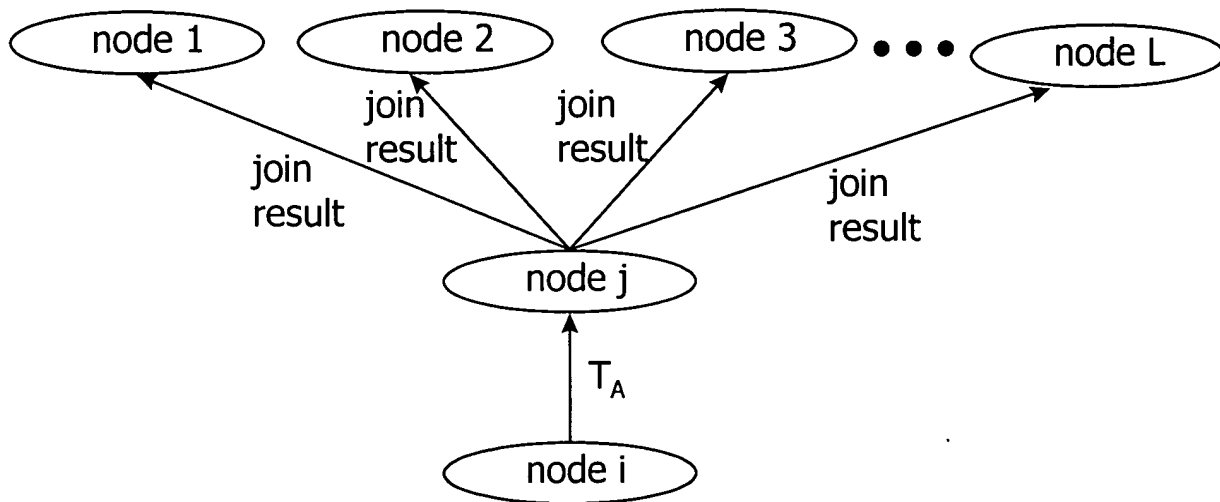


Figure 7B



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Figure 8

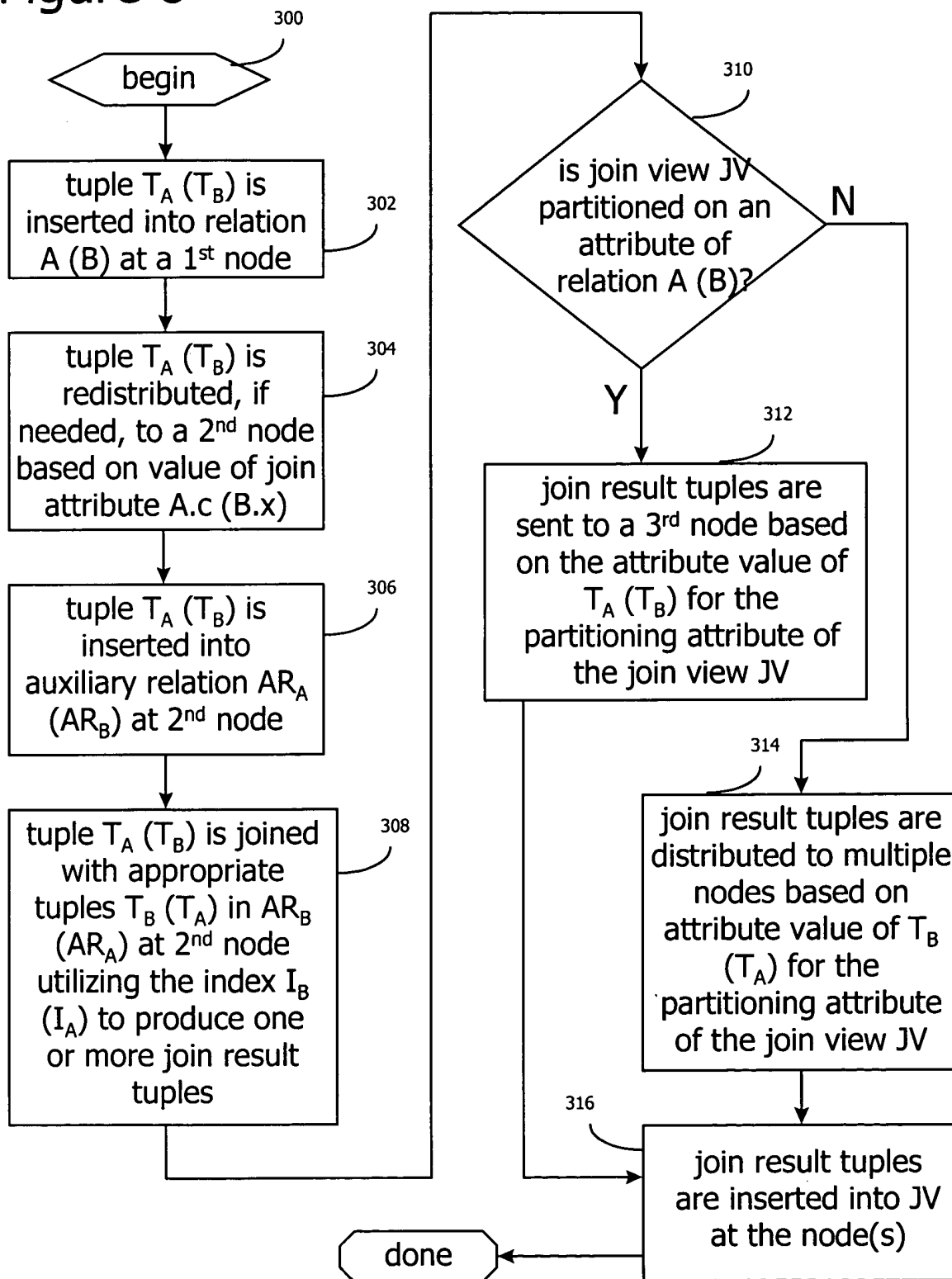
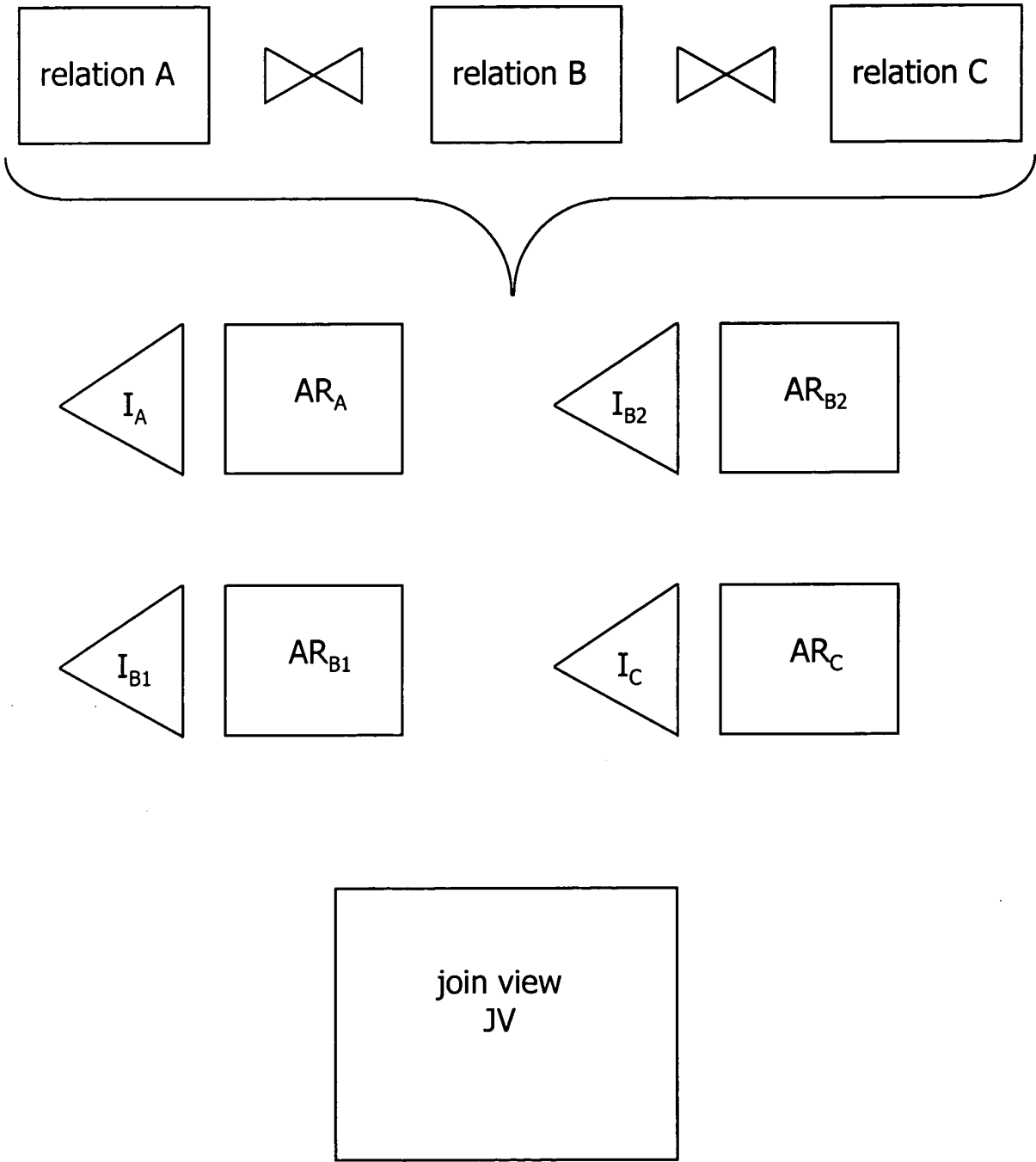


FIG. 8

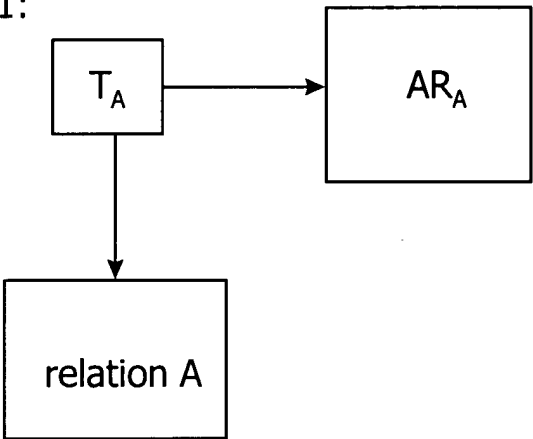
Figure 9A



TOP SECRET

Figure 9B

stage 1:



stage 2:

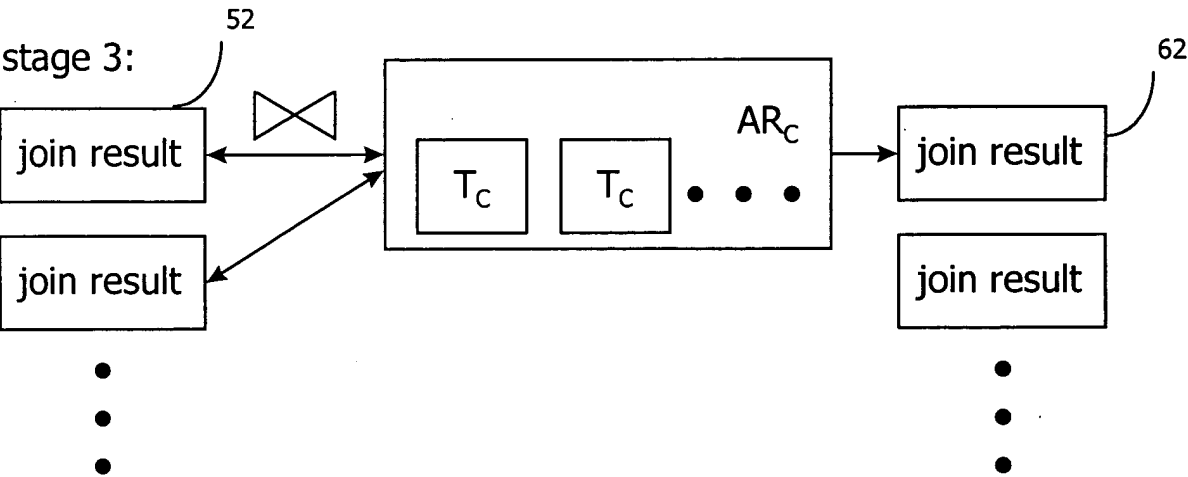
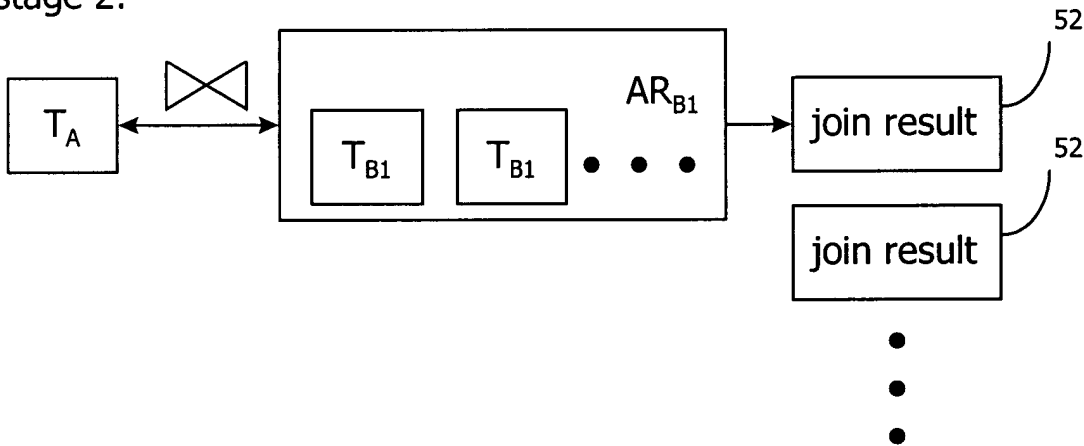
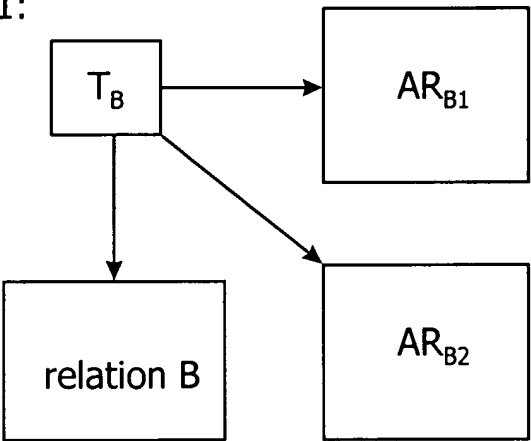


Figure 9C

stage 1:



stage 2:

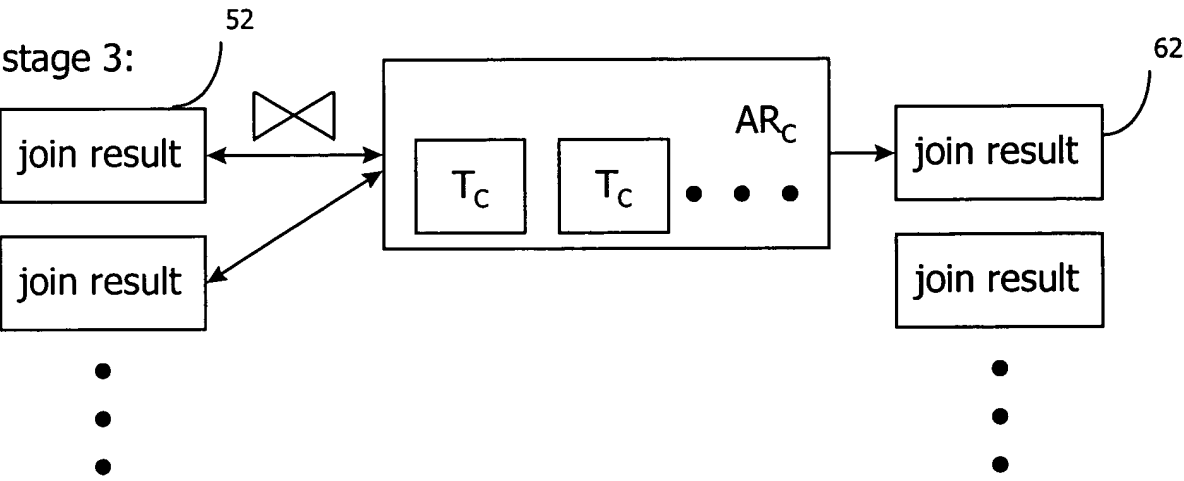
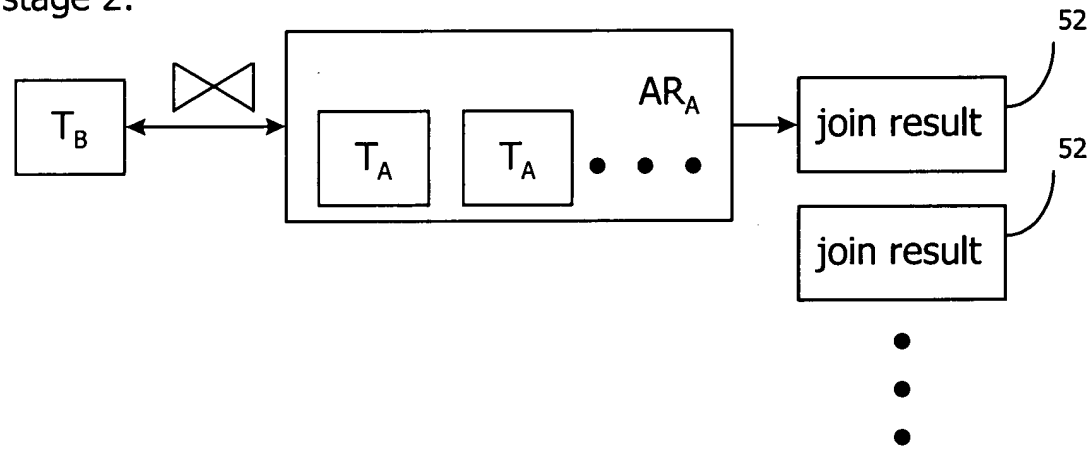
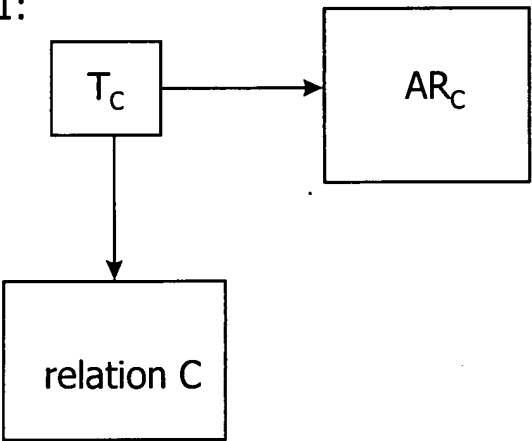


Figure 9D

stage 1:



stage 2:

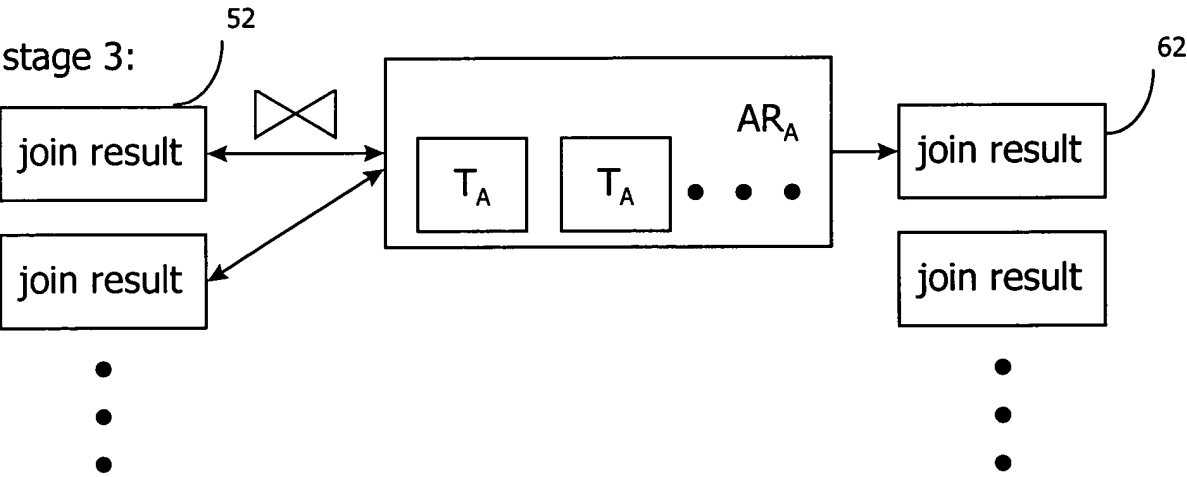
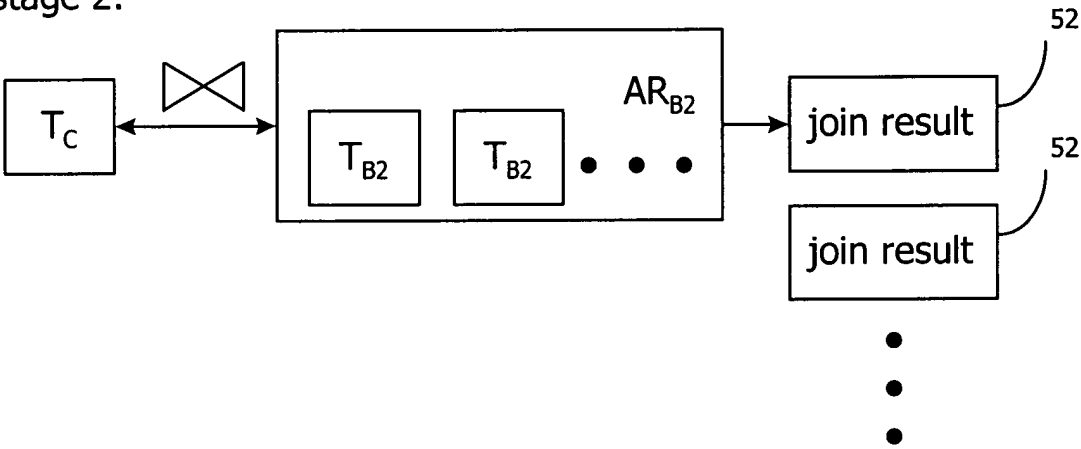


Figure 10

FOUO 08200660

